Application/Control Number: 10/676,837 Page 2

Art Unit: 2192

## DETAILED ACTION

1. Claims 1-15 have been canceled.

Claims 16-31 are being allowed.

# EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appear below. Should the change and/or additions be unacceptable to the Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such amendment, it MUST be submitted no later than the payment of issue fee.

Authorization for examiner's amendment was given in a telephone interview with Jeffrey A. Berkowitz, Registration No. 36,743, on May 22, 2009 to obviate any potential 101 issues and put the application in condition for allowance.

 The Claims are amended, as presented below, to reflect the amendment proposed by the examiner and adopt the changes provided by Applicant's representative on May 22, 2009.

#### IN THE CLAIMS:

The claim listings below replace all prior versions, and listings, of claims in the application.

Please amend claims 16-18 as follows:

Art Unit: 2192

16. (Currently Amended) A computer-readable storage device containing instructions executable by one or more processors for controlling a data processing system to perform a method for supplying data to a view presenting a model, the view having at least one user interface (UI) element and relating to a controller for manipulating the model, the method comprising:

creating a run-time context data structure, the run-time context data structure being based on a design-time context data structure, the design-time context data structure including a context structure element that is bound to the UI element;

storing the run-time context data structure <u>that is based on the design-time context data</u> <u>structure</u> in a storage area that relates to the controller; [[and]]

using a supply function to provide content for the run-time context data structure[[.]];

accessing a structure element of the run-time context data structure, the context structure element comprising a node collection;

evaluating the node collection;

if the result of evaluating the node collection requires filling at least one element of the node collection;

sending a query to a computer system; and

in response to the query, receiving from the computer system at least one data instance that is used to fill the at least one element of the node collection.

(Currently Amended) A computer-readable storage device containing instructions
 executable by one or more processors for controlling a data processing system to perform a

Art Unit: 2192

method for accessing application data by an application using a model of the application and at least one controller for manipulating the model, the method comprising:

providing a storage area, the storage area being organized according to a design-time context data structure having declared relationships between the application data, the design-time context data structure relating to the controller; [[and]]

storing a run-time context data structure that is based on the design-time context data structure;

accessing a structure element of the run-time context data structure, the context structure element comprising a node collection;

evaluating the node collection; [[and]]

if the result of evaluating the node collection requires filling at least one element of the node collection:

sending a query to a computer system; and

in response to the query, receiving from the computer system at least one data instance that is used to fill the at least one element of the node collection.

18. (Currently Amended) A computer-readable storage device containing instructions executable by one or more processors for controlling a data processing system to perform a method, the method comprising:

establishing a model, the model implementing application logic of an application;

Art Unit: 2192

establishing at least one view for presenting the model, the view comprising a user interface (UI) element which is bound to a first context data structure;

establishing at least one controller for manipulating the model, the at least one controller relating to the at least one view; [[and]]

establishing at least one storage area for storing an instance of the first context data structure, the instance of the first context data structure comprising data having been stored in the storage area by an access method associated with the at least one controller, the first context data structure having been declared prior to execution of the application, the first context data structure relating to the at least one controller[[.]];

storing the run-time context data structure that is based on a design-time context data structure in a storage area that relates to the controller;

accessing a structure element of the run-time context data structure, the context structure element comprising a node collection;

evaluating the node collection,

if the result of evaluating the node collection requires filling at least one element of the node collection:

sending a query to a computer system; and

in response to the query, receiving from the computer system at least one data instance that is used to fill the at least one element of the node collection.

Art Unit: 2192

19. (Previously Presented) The computer-readable storage device of claim 18, wherein the instance of the first context data structure comprises one or more node elements, each node element comprising one or more data fields based on the first context data structure.

- (Previously Presented) The computer-readable storage device of claim 19, wherein one or more of the node elements are grouped into a node collection.
- (Previously Presented) The computer-readable storage device of claim 20, wherein one or
  more of the node elements in the node collection are grouped into a node selection.
- (Previously Presented) The computer-readable storage device of claim 21, wherein one of
  the node elements in the node selection is identified as a lead selection element.
- (Previously Presented) The computer-readable storage device of claim 22, wherein the UI element displays data from the lead selection element.
- 24. (Previously Presented) The computer-readable storage device of claim 18, wherein the access method is part of an application programming interface (API) for accessing the instance of the first context data structure.
- 25. (Previously Presented) The computer-readable storage device of claim 18, wherein the method further comprises:

establishing an instance of a second context data structure, the second context data structure having been declared to be a child of the first context data structure prior to execution of the application.

Art Unit: 2192

26. (Previously Presented) The computer-readable storage device of claim 25, wherein the

Page 7

instance of the first context data structure comprises one or more node elements of a first type

grouped into a first node collection, and the instance of the second context data structure

comprises one or more node elements of a second type grouped into a second node collection.

27. (Previously Presented) The computer-readable storage device of claim 26, wherein one of

the node elements in the first node collection is identified as a selected element, and wherein the

node elements in the second node collection depend on the selected element.

28. (Previously Presented) The computer-readable storage device of claim 26, wherein the

second node collection has a state.

29. (Previously Presented) The computer-readable storage device of claim 28, wherein the

state is selected from the group of valid, invalid, and unfilled.

30. (Previously Presented) The computer-readable storage device of claim 29, wherein the

method further comprises:

establishing a supply function for determining a content of the one or more node elements

in the second node collection if the state of the second node collection is invalid or unfilled.

31. (Previously Presented) The computer-readable storage device of claim 30, wherein the

supply function is implemented as a method of the at least one controller.

--End--

Application/Control Number: 10/676,837 Page 8

Art Unit: 2192

### Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance:

As applicant pointed out under Remark section, pages 8-10, Kekic (US 6,664,978 B1), taken either singly and/or in combination with other cited prior arts, do not teach the combined functional limitations of storing a run-time context data structure that is based on the design-time context data structure; accessing a structure element of the run-time context data structure, the context structure element comprising a node collection; evaluating the node collection; if the result of evaluating the node collection requires filling at least one element of the node collection; sending a query to a computer system; and in response to the query, receiving from the computer system at least one data instance that is used to fill the at least one element of the node collection, as recited in such manners in each of independent claims 16-18.

Prior arts of record do not teach and/or suggest these claimed limitations, thus, all remaining pending claims 16-31 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

#### Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to ISAAC T. TECKLU whose telephone number is (571) 272-7957.
 The examiner can normally be reached on M-TH 9:300A - 8:00P.

Application/Control Number: 10/676,837 Page 9

Art Unit: 2192

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Isaac T Tecklu/ Examiner, Art Unit 2192 /Tuan Q. Dam/ Supervisory Patent Examiner, Art Unit 2192

Page 10

Art Unit: 2192